

Work Order ID 124409

September-11-14 12:04:59 PM

124409

Page 1

Item ID: 647.3912

Revision ID:

Item Name: Lower Deflector

Start Date: 9/10/14 Start Qty: 4.00

Required Date: 9/10/14 Req'd Qty: 4.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals: Process Plan: MLS Date: 14-09-17 Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

647.3900

C

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut Blank at 20.000"

*** ONE BLANK MAKES TWO PARTS***

2

0

DAS
20
9-89

14-11-20

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1-Machine per folio FB309

DWG REV: CFOLIO REV: AA

2- deburr and break all sharp edges

3

1

DAS
20
9-89

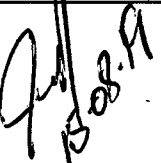
14-11-21

DQA: JA Date: 15/09/02

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: BA Date: 15/09/02Work Order update only ☐

Work Order: <u>124409</u>	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>647.3912</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>15-5301</u>		Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design		14-11-21	110	1	Dimension of .350 ^{+0.02} is under tolerance at ".340"	DAS 9 9-89 15-08-19 DAS 16 9-89	Scrap n destroy no replace	DAS 20 9-89 14-11-21		DAS 9 9-89 15-08-19
Doc/Data										
Equip/Tooling										
Handling/Pre										
Material										
Operator	X									
Offset/Setup										
Process										
Supplier										
Training										
Transport										
Unapproved										

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☒ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124409

124409

Page 2

Item ID: 647.3912

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Lower Deflector

Start Date: 9/10/14

Start Qty: 4.00

4

Cust Item ID:

Required Date: 9/10/14

Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

3

1

DAS
20
9-89

14-11-21

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

3

0

JFC
14/14/26

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O to ATG : 29591

1- Black Anodize as per Dwg 647.3900

2- PRIME AS PER DWG, SEE NOTE #9

Certification of Conformity is required

CL

AUG 26 2015

3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124409

September-11-14 12:05:00 PM

124409

Page 3

Item ID: 647.3912 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Lower Deflector
 Start Date: 9/10/14 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 9/10/14 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Receive & Inspect for Damage & Mat'l Certs	0.00							
150						3		DAS	
Packaging	Memo	0.00						9-89	
Packaging									
155	QC5- Inspect part completeness to step on W/O	0.00							
155						3		DAS	
QC	Memo	0.00						38	
Quality Control								9-89	
									SEP 01 2015
180	Identify as per dwg & Stock Location: <u>mf3</u>	0.00							
180						3		DAS	
Packaging	Memo	0.00						27	
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***							9-89	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Design											
Doc/Data											
Equip/Tooling											
Handling/Pre											
Material											
Operator											
Offset/Setup											
Process											
Supplier											
Training											
Transport											
Unapproved											

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Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Work Order ID 124409

September-11-14 12:05:00 PM

124409

Page 4

Item ID: 647.3912 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lower Deflector
Start Date: 9/10/14 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 9/10/14 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

_____ MCS _____ SEP 02 2015

54 20150901

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Doc/Data									
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Material									
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Training									
Transport									
Unapproved									

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Picklist Print

September-11-14 12:04:59 PM

Page 1

Work Order ID: 124409

124409

Parent Item: 647.3912

647 3912

Parent Item Name: Lower Deflector

Start Date: 9/10/14

Required Date: 9/10/14

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV.A NEW ISSUE JFS 14/05/29 VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B0.375X6.000 }		Purchased	No			100	f	45.8167	0.834	4			DAS
M7075T6B0.375X6.000									**	3.417			20 9-89 14-11-20
7075-T6 Plate 0.375" X 6.000", QQ-A 250/12													

Location

Loc Qty

Loc Code

MAT049

45.8167

M128038

4.2167

M130175

41.6

3.417

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Crosstube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04556

SHEET 1 OF 1

DWG NO. 647.3900

REV: C

PREPARED BY D. MEJIA

DATE: 06/10/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: DEFLECTORS

APPROVED BY: ENGR *[Signature]*

MFG *[Signature]*

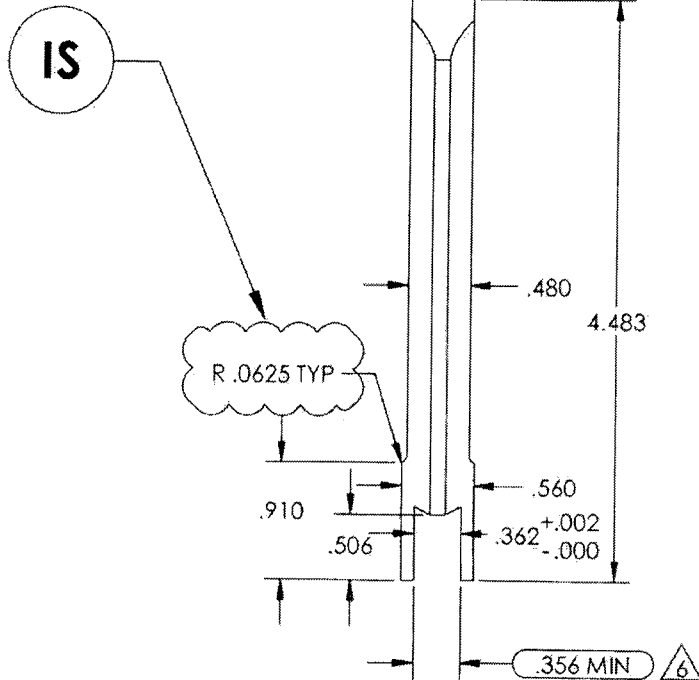
QC *[Signature]*

EFF. NEXT ORDER

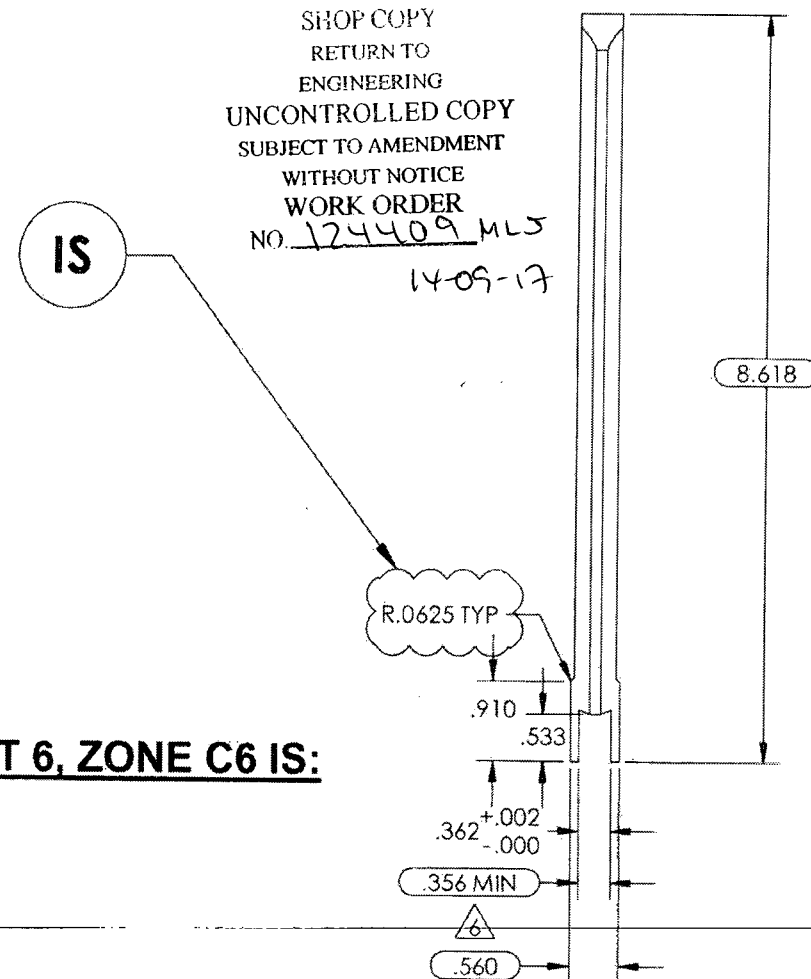
TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: DIMENSION CHANGE

ECR: D-14-04



SHEET 5, ZONE C6 IS:



SHEET 6, ZONE C6 IS:

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 124409 MLS
14-09-17

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

9 FINISH: PRETREAT PR-148 ADHESION PROMOTER,
PRIME IAW MIL-P-23377J, TYPE I, CLASS N;
1-2 MIL MAX.

04556

6				12	647.3074	RIVET	CR3213-6-9
2				11	647.3917	DOUBLER	
1				10	647.3916	DEFLECTOR, UPPER HALF	 
1				9	647.3915	DEFLECTOR, LOWER HALF	 
	1			8	647.3914	BREAKAWAY TIP LONG	  
		1		7	647.3913	BREAKAWAY TIP MEDIUM	  
			1	6	647.3912	LOWER DEFLECTOR	  
				5	647.3911	212 UPPER DEFLECTOR	  
				4	647.3910	412 UPPER DEFLECTOR	  
A/R	A/R	A/R		3	601.2045	RIV, LOCITE 598	
	3	2		2	601.3074	RIVET	MS3247AD 6-12
				1		DELETED	
X					647.3903	DEFLECTOR ASSY	
	X				647.3902	LOWER DEFLECTOR ASSY HIGH	
		X			647.3901	LOWER DEFLECTOR ASSY LOW	
.3903	.3902	.3901	FIND #		PART #	DESCRIPTION	MAT'L SPEC
QTY				PART LIST			
NEXT ASSY (5)				APICAL INDUSTRIES			
647.3800				2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
				DEFLECTORS			
				SCALE: NONE			
				SHEET 1 OF 12			

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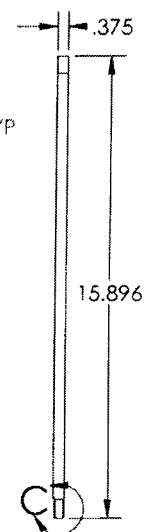
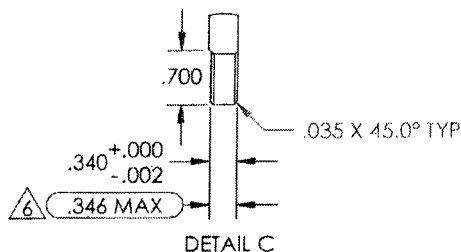
.125 X 45.0° TYP

SECTION B-B

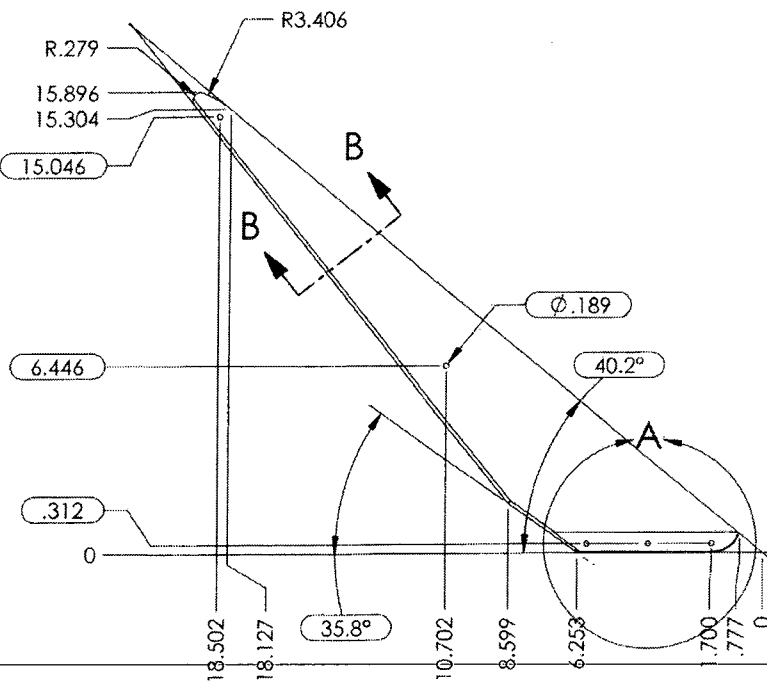
Ø.177 THRU 3PL

.266 X 17.9°

DETAIL A



647.3911

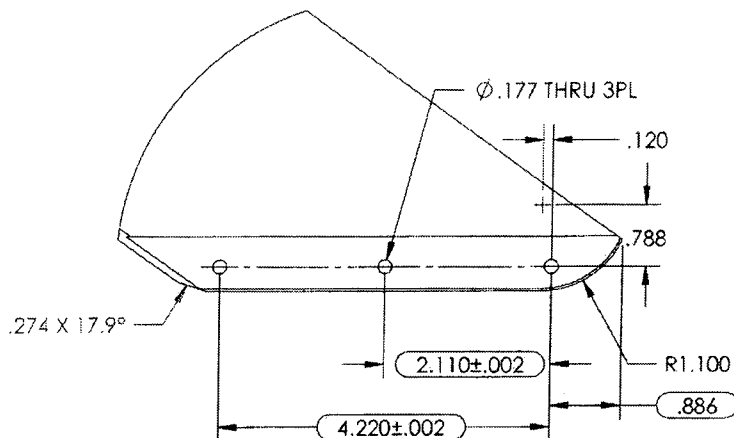


OPERATIONAL DATE		APICAL INDUSTRIES	
DESIGNED BY	DR-130P	2608 TEMPLE HEIGHTS DR.	
DRAWN BY	CHECKER	OCEANSIDE, CA. 92056-3512 (760)724-5300	
DESIGNED BY	DESIGNER	DEFLECTORS	
DESIGNED BY	DESIGNER	SCALE NONE	
DESIGNED BY	DESIGNER	SHEET 2 OF 12	
DESIGNED BY	DESIGNER	REV. C	
DESIGNED BY	DESIGNER	647.3900	
DESIGNED BY	DESIGNER	07/2016	

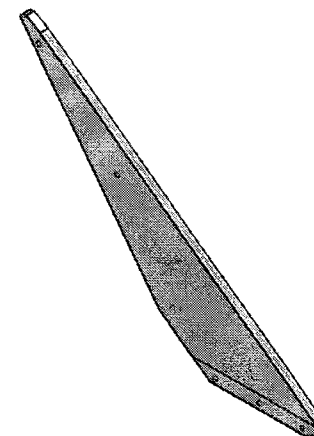
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

.125 X 44.9°

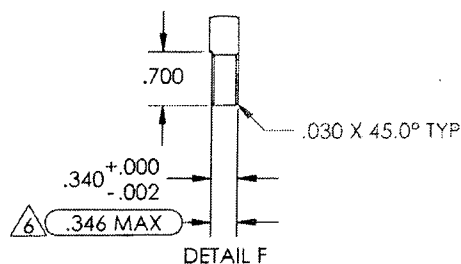
SECTION E-E



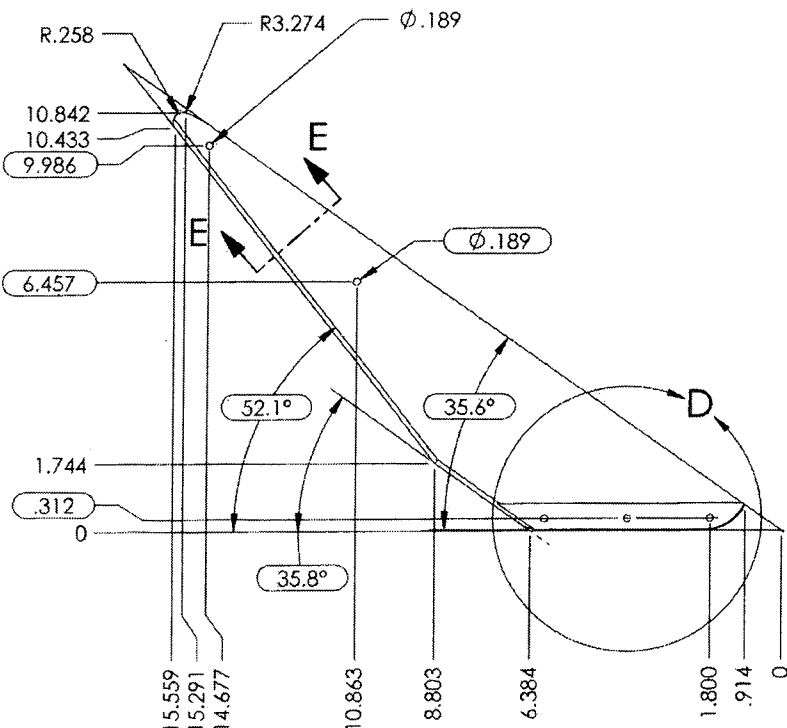
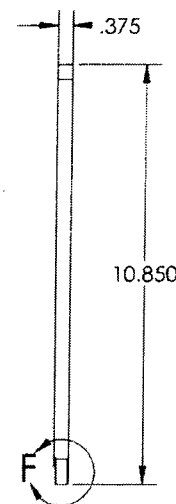
DETAIL D



647.3910

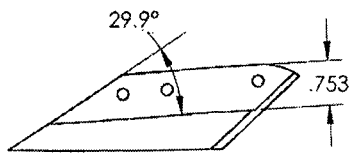


DETAIL F

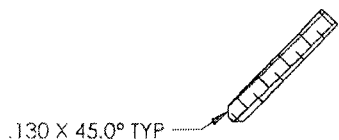


ORIGINAL DATE APICAL INDUSTRIES, INC. 08-11-08		APICAL INDUSTRIES	
DRAWN BY: CHUCKER		2608 TEMPLE HEIGHTS DR.	
DESIGNED BY: CHUCKER		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL		DEFLECTORS	
BY: BRADY		REV. C	
CORRECTIONS:		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ±.01 DECIMALS DECIMALS ±.005 ANGLES ±.5°		SHEET 3 OF 12	

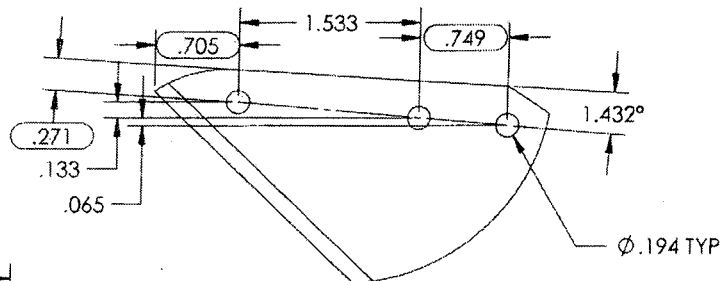
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



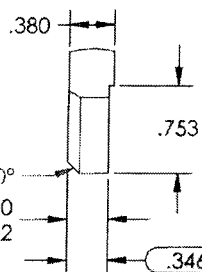
SECTION L-L



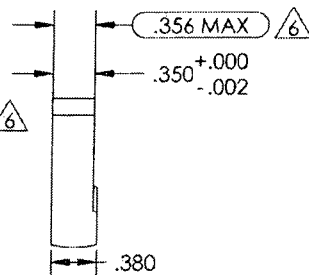
SECTION M-M



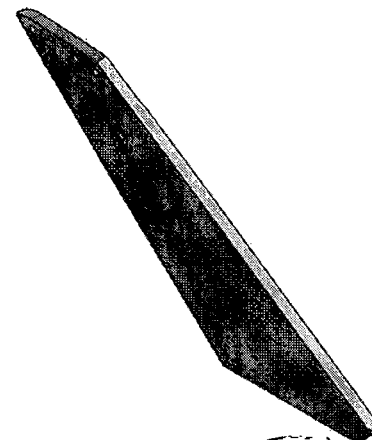
DETAIL H



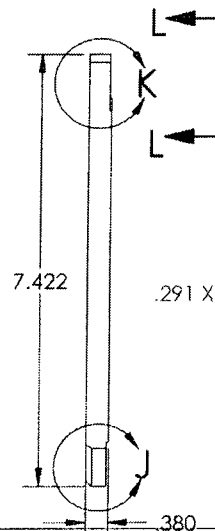
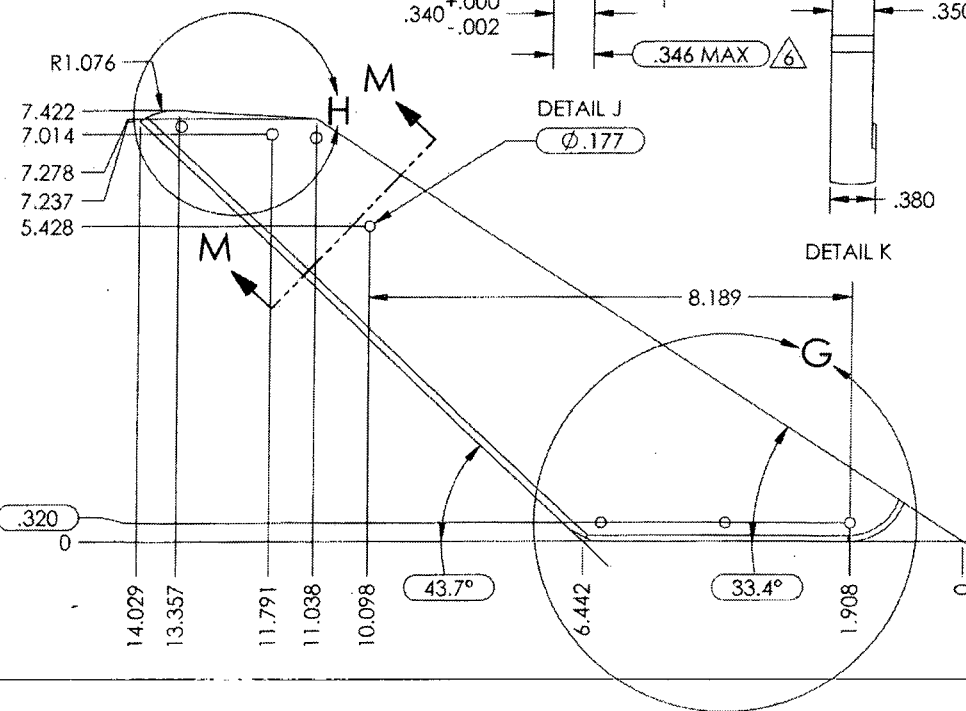
DETAIL J



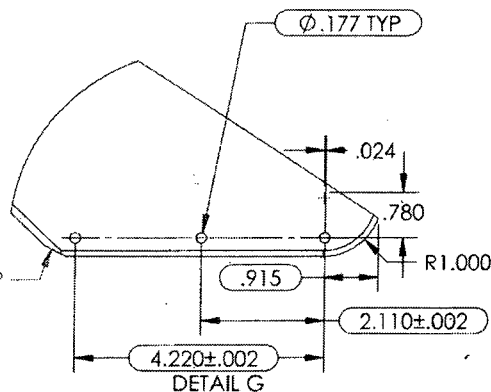
DETAIL K



647.3912



DETAIL G



ORIGINAL DATE
DESIGNED BY
DRAWN BY
CHECKED BY
APPROVED BY
DATE
CONTRACT NO.

APICAL INDUSTRIES
2638 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

DEFLECTORS

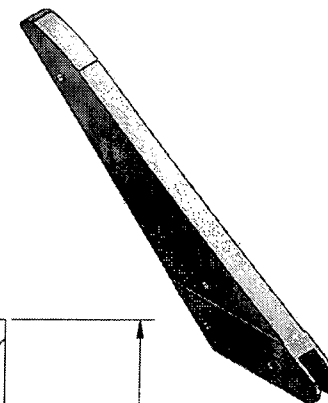
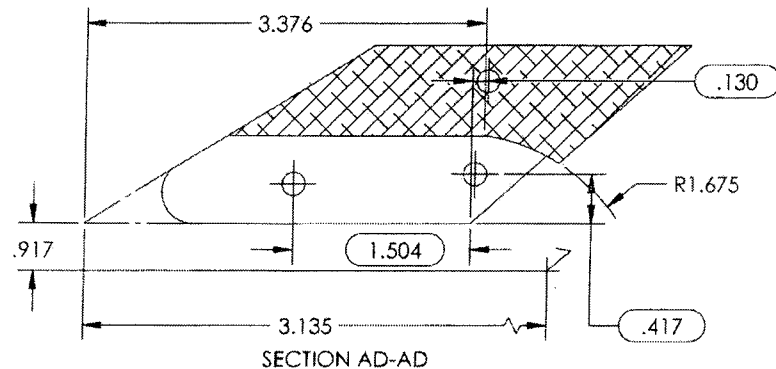
UNITS: DIMENSIONS SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
FRACTIONS DECIMALS ±.01
FRACTIONS DECIMALS ±.005
ANGLES ±.5°

SCALE: NONE
SHEET 4 OF 12

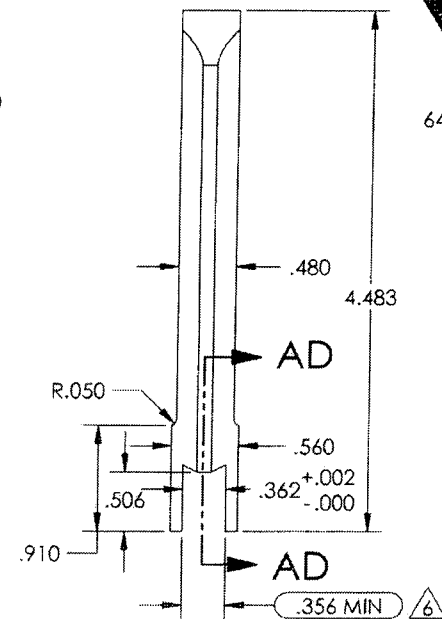
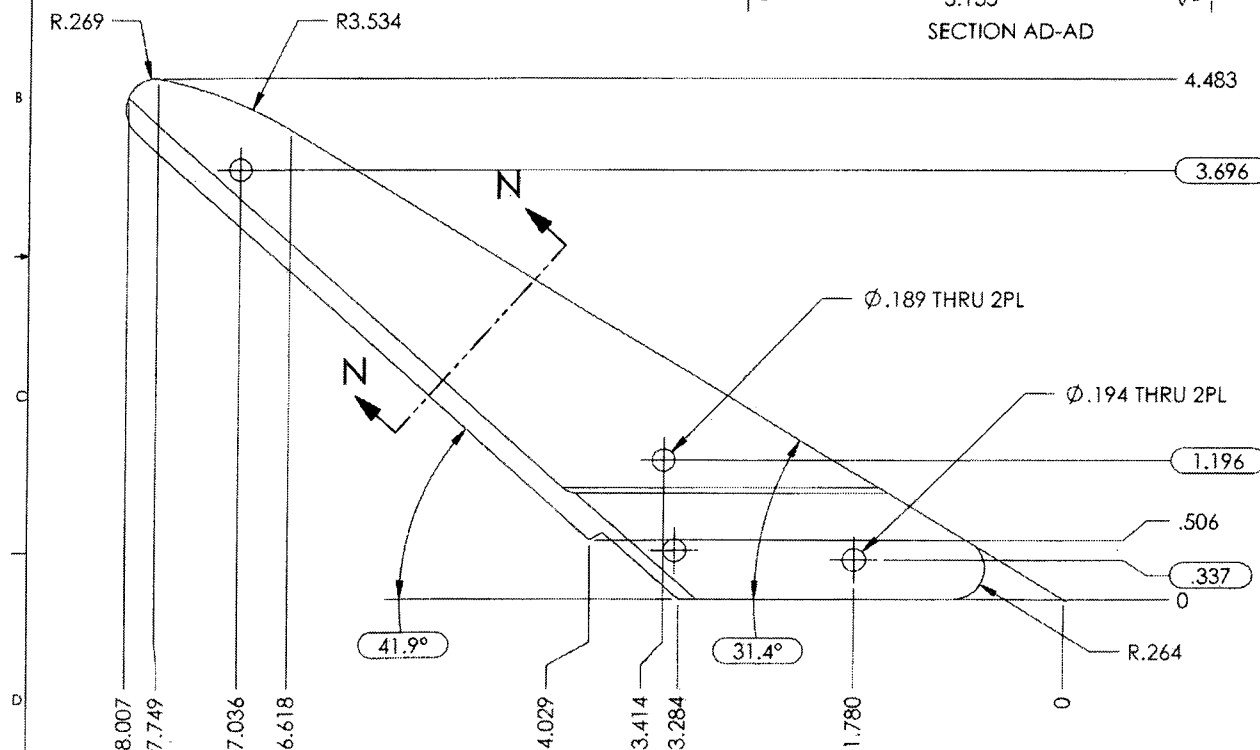
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.180 X 45.0° TYP

SECTION N-N



647.3913



ORIGINAL DATE		APICAL INDUSTRIES	
DATE	BY	2608 TEMPLE HEIGHTS DR.	
DESIGNED	ENGINEER	OCEANSIDE, CA. 92056-3512	(760) 724-5300
DRAWN	CHECKED	DEFLECTORS	
DATE	BY	SCALE	REV.
01/10/00	01/10/00	NONE	C
UNLESS OTHERWISE SPECIFIED		647.3900	
DIMENSIONS ARE IN INCHES		SHEET 5 OF 12	
TOLERANCES ARE:			
FRACTIONS DECIMALS .001			
ANGLES ± .2°			

.175 X 45.0° TYP

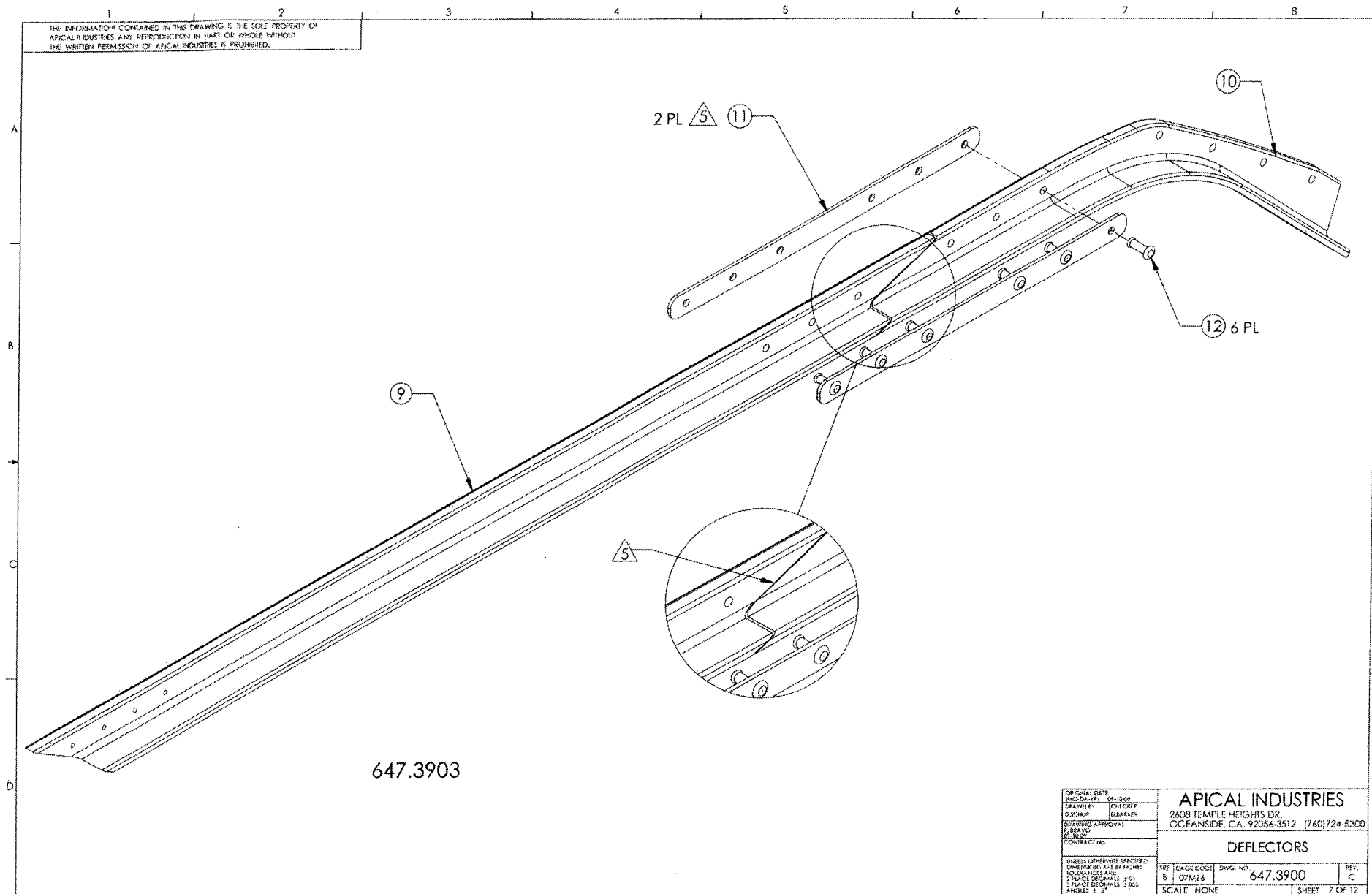
740 _____

SECTION AB-AB

647.3914

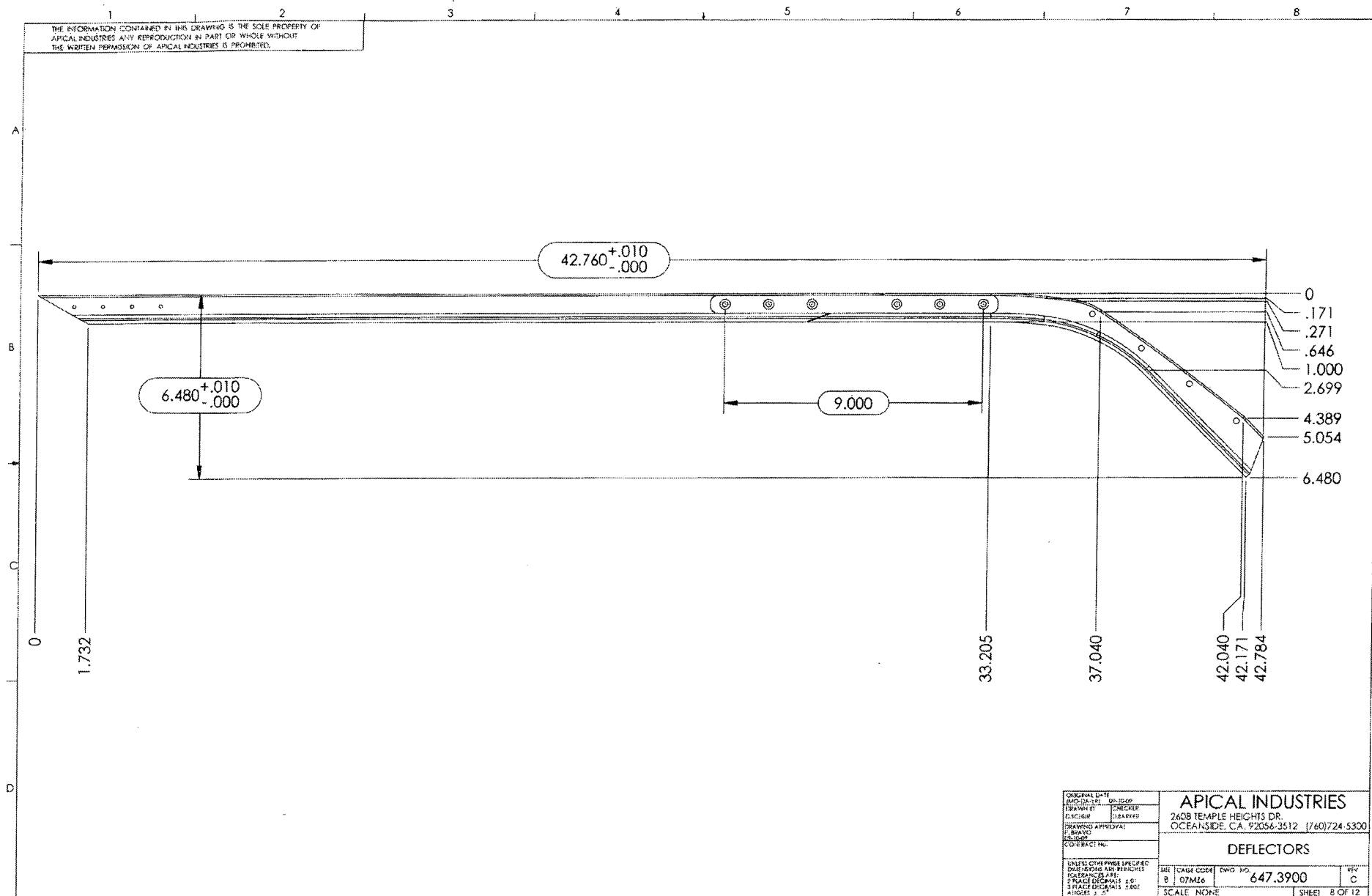
OFFICIAL DATE (MO/DA/YR) 09-10-09 DRAWING NO. CHESTER 124-00000 2-DRAWN DRAWING APPROVAL P. BRAND 09-10-09 CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
	DEFLECTORS		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 FRACTIONAL INCHES ± .015 2 FRACTIONAL INCHES ± .010 3 PLACE DECIMALS ± .005 ANGLES ± .5°	SIZE B 07MA26	QTY 647.3900	PER. C
	SCALE NONE		SHEET 6 OF 12

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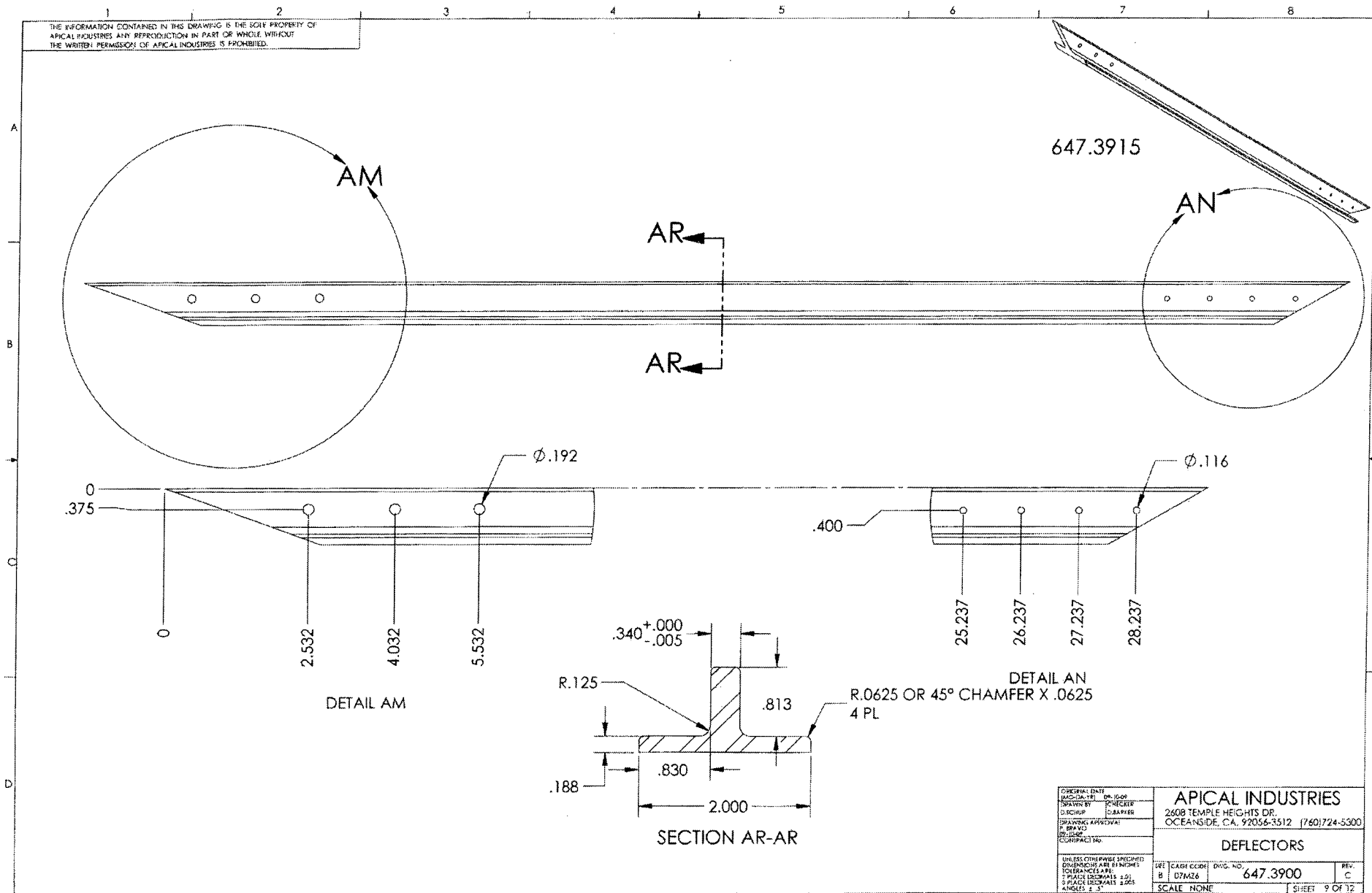
ORIGINAL DATE JANUARY 1980		APICAL INDUSTRIES	
DRAWN BY: J. H. H. H.		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: J. H. H. H.		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DESIGNED BY: J. H. H. H.		DEFLECTORS	
CONTRACT NO.		647.3900	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS ARE PLACES DECIMALS 1/16 ANGLES 1/2°		REV. C	SHEET 7 OF 12

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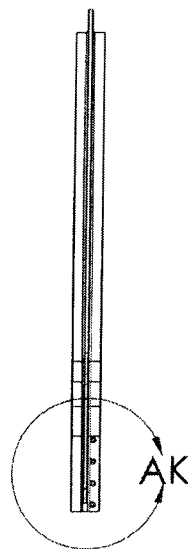
ORIGINAL DATE		APICAL INDUSTRIES	
DESIGNED BY	CHECKED	2608 TEMPLE HEIGHTS DR.	
DRAWN BY	CHECKED	OCEANSIDE, CA 92056-3512 (760) 724-5300	
CHECKED BY	CHECKED	DEFLECTORS	
DRAWING APPROVAL		SCALE NONE	
CONTRACT NO.		SHEET 8 OF 12	
UNLESS OTHERWISE SPECIFIED		DIMS. IN INCHES	
TOLERANCES ARE:		DIM. 0.005	
FRACTIONS 1/16"		DECIMALS 0.01"	
ANGLES 1/2°		SCALE NONE	

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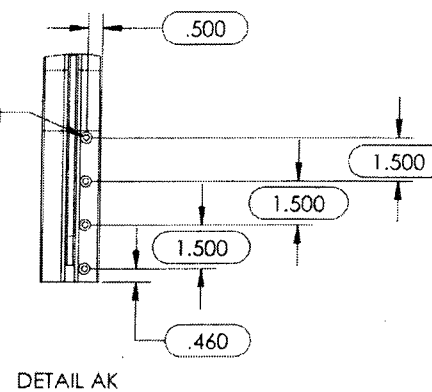


ORIGINAL DATE 10/1/88		APICAL INDUSTRIES	
DRAWN BY C. BARKER	CHECKED C. BARKER	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS (DECIMALS 1/16) ANGLES 1/2°		DEFLECTORS	
DATE B	CAD/CORR D7M26	DWG. NO. 647.3900	REV. C
SCALE NONE		SHEET 9 OF 12	

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THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



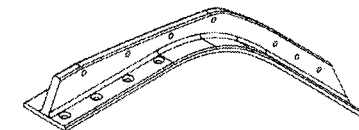
4X $\phi .196 \pm .010$ THRU ALL
✓ $\phi .385 \pm .020 \times 100^\circ \pm 1.000^\circ$



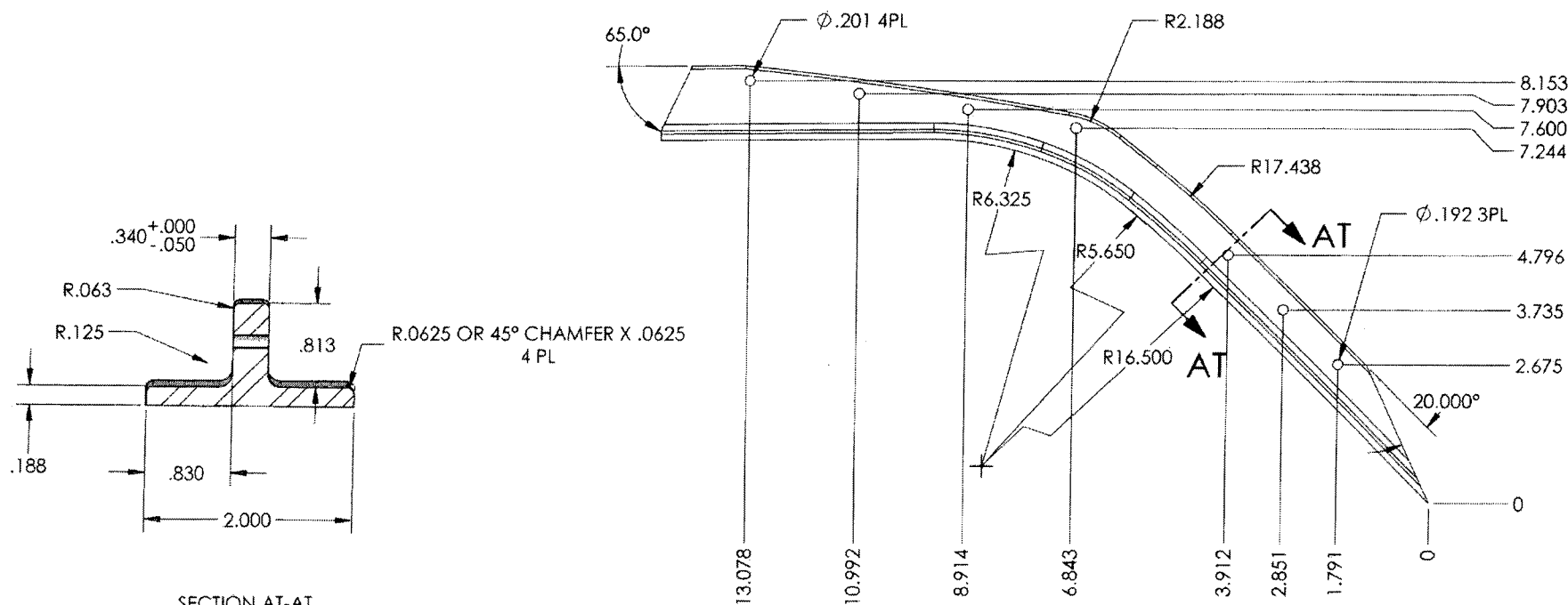
647.3915

ORIGINAL DATE: 10-10-88		APICAL INDUSTRIES	
DRAWN BY: D. BARBER		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: D. BARBER		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: [Signature]		DEFLECTORS	
CONTRACT NO.:		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. DIMENSIONS ARE: 3 PLACE DECIMALS (X1) 2 PLACE DECIMALS (X2) ANGLES: 3°		REV: B	REV: C
SHEET: 10 OF 12		647.3900	

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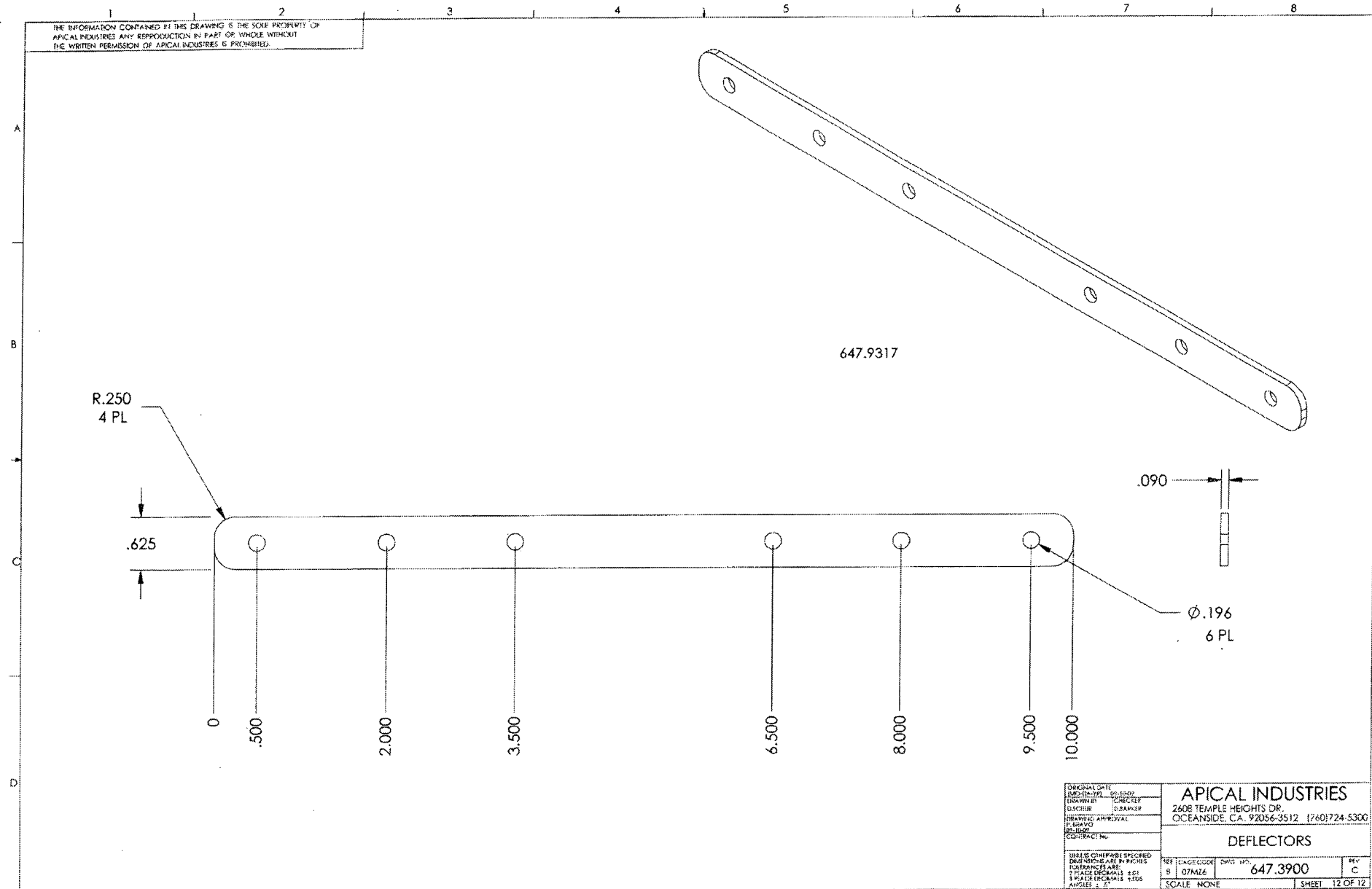
647.3916



SECTION AT-AT

OFFICIAL DATE 10/24/97		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY D. SCHUBERT	CHECKED BY D. BARBER	DEFLECTORS	
DRAWING APPROVAL J. BLANK		DWG. NO. 647.3900	REV. C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE .001 FRACTIONS ARE 1/16		SCALE NONE	SHEET 11 OF 12

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PO REPRINT

Purchase Order ID PO29591

Purchase Order Date 8/26/2015

PO Print Date 9/2/2015

Page Number 2 of 3

Order From :

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To :

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via

Ship Acct

VENDOR'S TRUCK

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

3	133886	D5230-3 MOUNTING BRACKET REV. A	8/28/2015	9.00	\$12.90	\$116.10
---	--------	------------------------------------	-----------	------	---------	----------

Yes

8/28/2015

HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK

Line Total: \$116.10

4	124409	647.3912 LOWER DEFLECTOR REV. C	9/1/2015	3.00	\$11.45	\$34.35
---	--------	------------------------------------	----------	------	---------	---------

Yes

9/1/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

Line Total: \$34.35

5	135596	647.0410 TUBE REV. N/C	9/1/2015	2.00	\$8.75	\$17.50
---	--------	------------------------	----------	------	--------	---------

Yes

9/1/2015

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE 1 CLASS N

Line Total: \$17.50

Note:

9/1/2015



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO29591**

Purchase Order Date 8/26/2015

PO Print Date 9/1/2015

Page Number 1 of 3

Order From :
A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 613-446-4544

Ship To Contact
Ship To Phone
Ship Via: VENDOR'S TRUCK
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	135633 <i>27/02</i>	650.5019 FWD BRACKET REV. PR13	8/28/2015 Yes 8/28/2015		8.00	\$8.40	\$67.20
		HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK					
						Line Total:	\$67.20
2	135632	650.5020 AFT BRACKET REV. PR13	8/28/2015 Yes 8/28/2015		8.00	\$8.40	\$67.20
		HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK					
						Line Total:	\$67.20
3	133886	D5230-3 MOUNTING BRACKET REV. A	8/28/2015 Yes 8/28/2015		9.00 <i>1379/11</i> <i>SV</i>	\$12.90	\$116.10
		HARD ANODIZE IAW MIL-A-8625 TYPE 3 CLASS 2, COLOR BLACK					

Note:

9/1/2015



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 63891

Date: 01-Sep-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
9 ea	Part: D5230-3 BRACKET HARD ANODIZE BLACK MIL-A-8625 TY III CL 2 Job: 20150653 PO: PO29591	Rev:	Line:
3 ea	Part: 647.3912 LOWER DEFLECTOR HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150654 PO: PO29591	Rev: C	Line:
2 ea	Part: 647.0410 TUBE REV HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLIED BY CUSTOMER Job: 20150655 PO: PO29591	Rev:	Line:
Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE : _____ CERTIFIED SIGNATURE : _____			



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 63891

Date: 01-Sep-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

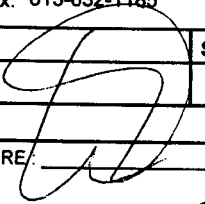
DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via
Quantity	Description	
	RECEIVER SIGNATURE: 	
	15-09-01	